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(54) Title: PREVENTING DAMAGE TO OPTICAL COMPONENTS FROM OPTICAL TIME DOMAIN REFLECTOMETERS

**WO 2004/084439** (57) Abstract: There is provided in a telecommunications network (1) comprising an optical fibre cable (2), and an optical component (3) connected to a first point (4) of the optical fibre cable, with an optical time domain reflectometer (OTDR) (5) connected to a second point (6) of the optical fibre cable so that it can emit OTDR signals along the optical fibre cable towards the optical component, a method of preventing OTDR signals from being applied to the optical component, comprising introducing one or more optical signals into the optical fibre cable at the first point thereof, using the optical fibre cable to carry the optical signals to the second point thereof, and configuring the OTDR to detect the or each optical signal from the optical fibre cable and to prevent emission of OTDR signals at any time during which detection of an optical signal occurs. The optical component may comprise, for example, an optical receiver which may introduce the optical signals into the optical fibre cable. Alternatively, introducing one or more optical signals into the optical fibre cable may comprise superimposing one or more optical signals onto the optical fibre cable. The OTDR (4) may comprise a detector, used to detect the or each optical signal from the optical fibre cable. The OTDR may comprise a transmitter, used to emit OTDR signals, and disabled to prevent emission of OTDR signals at any time during which detection of an optical signal occurs.